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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/611,521

Applicant(s)

CALHOUN, PATRICE R.

Examiner

Sai-Ming Chan

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702)**, in view of **Williams et al. (U.S. Patent Publication #20020133600)**.

Consider **claims 1 and 12**. Jones et al. clearly disclose and show a wireless network system, comprising

a plurality of access elements (column 1, lines 36-39 (access points)) for wireless communication (abstract (WLAN)) with one remote client element (fig. 1(12), column 5, lines 46-50) and for communication with a central control element (fig. 1(22), column 5, lines 46-59 (VAP server));

a central control element for supervising (fig. 2 (34 & 36), column 10, lines 32-54) said access elements, where the central control element is operative to manage, and control (fig. 2 (34 & 36), column 10, lines 32-54 (route , drop or route local)) the wireless connections between the access elements and corresponding remote client elements (), wherein the central control element is further operative to

detect a session initiation message (fig. 2 (34 & 36), column 10, lines 32-54 (look at SIP message)) associated with a remote client element, the session initiation message corresponding to a session between the remote client element and an end system (fig. 2 (34 & 36), column 10, lines 32-54 (SIP message from wireless terminal to call control device)) ,

maintain wireless connections with one or more remote client elements (col. 1, lines 40-47 (wireless connection));

However, Jones et al., do not specifically disclose processing the session initiation message to determine one or more Quality-of- Service (QoS) parameters, wherein one of the one or more QoS parameters is an allocation of wireless bandwidth resources of an access element; associate the one or more QoS parameters to the session corresponding to the session initiation message, and forward the session initiation message to a session initiation protocol server for processing of the session initiation message; transmit the one or more QoS parameters to a first access element to which the first remote client element is associated, and wherein the first access element is operative to maintain wireless connections with one or more remote client elements; reserve wireless bandwidth of the first access element for the session according to the allocation of wireless bandwidth of the QoS parameter transmitted by the central control element.

In the same field of endeavor, Williams et al. clearly shows:

process the session initiation message (paragraph 0041 (session is established using SIP)) to determine one or more Quality-of-service (QoS) parameters (paragraph 0043 (QoS contains bandwidth, delay, etc)), where one of the one or more QoS parameters (paragraph 0043 (QoS contains bandwidth, delay, etc)) is an allocation for wireless bandwidth resources (paragraph 0043 (QoS contains bandwidth, delay, etc)) of an access element (paragraph 0011, lines 62-66 (RSVP is used to request a specific quality of service), paragraph 0016 (RSVP is the access point)), paragraph 0044 (RSVP

specifies the resource reservation)),

associate the one or more QoS parameters to the session (paragraph 0051, lines 16-22 (SIP request contains QoS requirements)) corresponding to the session initiation message (paragraph 0041 (session is established using SIP)), and

forward the session initiation message (paragraph 0051, lines 16-22 (SIP request is sent to CSCF for authorization)),

transmit the one or more QoS parameters (paragraph 0052 (policy control function authorizes the required QoS)) to a first access element to which the first remote client element is associated (paragraph 0016 (RSVP is the access point)), and

wherein the first access element (fig. 6 (RSVP), paragraph 0016 (RSVP is the access point)) is operative to maintain wireless connections with one or more remote client elements (fig. (88), paragraph 0039 (MT)); reserve wireless bandwidth for the session (paragraph 0044 (RSVP (access point) specifies the resource reservation)) according to the allocation of wireless bandwidth of the Qos parameter transmitted by the central control element (paragraph 0052 (policy control function authorizes the required QoS)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a network system, as taught by Jones et al., and show QoS and SIP, as taught by Williams, in order to provide an optimal communication path.

Consider **claim 2**, and **as applied to claim 1 above**, Jones et al., as modified by

Williams, clearly disclose and show a computer network (column 6, lines 18-25 (software logic)) wherein the central control element (fig. 2 (34 processor), column 6, lines 18-25) is coupled to the computer network, and wherein the central control element is operative to

establish a tunnel with each access element for transmission of wireless traffic associated with corresponding remote client elements (column 2, lines 44-63 (tunnel from VAP to VPN terminator)), and

bridge network traffic between the computer network and a remote client element through a tunnel (column 2, lines 44-63 (tunnel from VAP to VPN terminator)) with a corresponding access element.

Consider **claim 3**, and **as applied to claim 2 above**, Jones et al., as modified by Williams, clearly disclose and show a system wherein the access elements are each connected to the central control element via a direct access line (fig. 2 (42), column 7, lines 37-45).

Consider **claim 4**, and **as applied to claim 2 above**, Jones et al., as modified by Williams, clearly disclose and show a system wherein the access elements are each operably coupled to the computer network (column 1, lines 36-39 (access points), fig. 2, column 7, lines 37-45).

Claims 9, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702)**, in view of **Williams et al. (U.S. Patent Publication # 20030074452)**, and further in view of **McLampy et al. (U.S. Patent Publication # 20020114282)**.

Consider **claim 9**, and **as applied to claim 6**, Jones et al., as modified by Williams, clearly disclose and show a system as described.

However, Jones et al., do not specifically disclose maximum number of sessions.

In the same field of endeavor, McLampy et al. clearly shows a maximum number of sessions (paragraph 0032, lines 23-26 (maximum sessions)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a network system, as taught by Jones et al., and show authentication, as taught by McLampy, in order to provide an optimal communication path.

Consider **claim 10**, and **as applied to claim 1 above**, Jones et al., as modified by Williams, clearly disclose and show a system as described.

However, Jones et al., as modified by Williams, do not specifically disclose authentication mechanism.

In the same field of endeavor, McLampy et al. clearly shows a system further comprising a session initiation protocol (SIP) server (fig. 2 (246 SIP proxy server)) including an application layer authentication mechanism (paragraph 0073 (password

and userid));

and wherein the central control element is operative to maintain security states (fig. 3a (334 access right)) for remote client elements detected by the access elements,,

apply, at the access elements, a security mechanism to (fig. 3a (334 access right), paragraph 0073 (table 1)) control access to the wireless connections to remote client elements, wherein operation of the security mechanism is based on the security states of the remote client elements, and

adjust the security state (fig. 3a (334 access right), paragraph 0073 (table 1)) associated with a remote client element based on its interaction with the authentication mechanism associated with the SIP server.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, and demonstrate the authentication, as taught by McLampy et al., in order to provide an optimal communication path.

Consider **claim 11**, and **as applied to claim 10 above**, Jones et al., as modified by Williams and McLampy et al., clearly disclose and show a system wherein the central control element is operative to deny connections (column 1, lines 36-50 (needs to be authenticated before communication)) with an access element to a wireless client element that fails to properly authenticate (column 1, lines 36-50 (needs to be

authenticated before communication)) with the authentication mechanism of the SIP server.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702)**, in view of **Williams et al. (U.S. Patent Publication # 20030074452)**, and in view of **Amin et al. (U.S. Patent Publication # 20020152319)**.

Consider **claim 5**, and as applied to **claim 1** above, Jones et al., as modified by Williams, clearly disclose and show a system wherein the central control element transmit from the first access element to a second access element (paragraph 0099 (add the policy)).

However, Jones et al., as modified by Williams, do not specifically disclose QoS parameters defining the allocation of wireless bandwidth of the remote client.

In addition, Williams et al. clearly disclose QoS parameters defining the allocation of wireless bandwidth (paragraph 0043 (QoS contains bandwidth, delay, etc)) of the remote client (fig. (88), paragraph 0039 (MT)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones , and show QoS parameters defining the allocation of wireless bandwidth of the remote client, as taught by Williams, so that the user is provided with satisfying service.

However, Jones et al., as modified by Williams, do not specifically disclose handoff.

Furthermore, Amin et al. clearly disclose handoff (paragraph 0037 (during handoff, little interruption is involved)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, show QoS parameters defining the allocation of wireless bandwidth of the remote client, as taught by Williams, and demonstrate handoff, as taught by Amin et al., in order to provide a perfect communication path.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702)**, in view of **Williams et al. (U.S. Patent Publication # 20030074452)**, and in view of **Carlson et al. (U.S. Patent Publication # 20060120282)**.

Consider **claim 6**, and **as applied to claim 1 above**, Jones et al., as modified by Williams, clearly disclose and show a system as described.

However, Jones et al., as modified by Williams, do not specifically disclose QoS parameters defining the allocation of wireless bandwidth.

In addition, Williams et al. clearly disclose QoS parameters defining the allocation of wireless bandwidth (paragraph 0043 (QoS contains bandwidth, delay, etc)).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to incorporate a network system, as taught by Jones , and show QoS parameters defining the allocation of wireless bandwidth, as taught by Williams, so that the user is provided with satisfying service.

However, Jones et al., do not specifically disclose the QoS exceeds limit.

In the same field of endeavor, Carlson et al. clearly show the central control element is further operative to revoke previously granted QoS guarantees provided to at least one lower priority session, if enforcement of the QoS policy with all previously configured QoS parameters exceed a limit (paragraph 0213 (deny request)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a network system, as taught by Jones et al., show QoS parameters defining the allocation of wireless bandwidth, as taught by Williams, and show Qos exceeds limit, as taught by Carlson, in order to provide an optimal communication path.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jones et al. (U.S. Patent #7298702)**, in view of **Williams et al. (U.S. Patent Publication # 20030074452)** and **Carlson et al. (U.S. Patent Publication # 20060120282)**, and in view of **Amin et al. (U.S. Patent Publication #20020152319)**.

Consider **claim 7**, and **as applied to claim 6 above**, Jones et al., as modified by Williams and Carlson, clearly disclose and show a system as described.

However, Jones et al., as modified by Williams and Carlson, do not specifically disclose maximum bandwidth limit.

In addition, Amin et al. clearly disclose the limit is the maximum bandwidth associated with the access element (paragraph 0045 (default bandwidth during session establishment)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, and demonstrate maximum bandwidth limit, as taught by Amin et al., in order to provide a perfect communication path.

Consider **claim 8**, and **as applied to claim 6 above**, Jones et al., as modified by Williams and Carlson, clearly disclose and show a system as described.

However, Jones et al., as modified by Williams and Carlson, do not specifically disclose bandwidth limit is configurable.

In addition, Amin et al. clearly disclose bandwidth limit is configurable (paragraph 0043 (facilitate a change of bandwidth)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network system, as taught by Jones, and demonstrate configurable bandwidth limit, as taught by Amin et al., in order to provide a perfect communication path.

Consider **claim 14**, and **as applied to claim 12 above**,

claim 16, and **as applied to claim 1 above**,

Jones et al., as modified by Williams, clearly disclose the network system as described.

However, Jones et al., as modified by Williams, do not specifically disclose:

storing, responsive to detection of the session initiation message, the session initiation message forwarded to the session initiation protocol server;

monitoring for a response accepting the session corresponding to the session initiation message forwarded to the session initiation protocol server;

and wherein the enforcing the QoS parameter is conditioned on the response accepting the session initiation message.

In the same field of endeavor, Williams et al. clearly disclose:

storing, responsive to detection of the session initiation message (paragraph 0051, lines 16-22 (SIP message), the session initiation message (paragraph 0049 (store context in database)) forwarded to the session initiation protocol server (paragraph 0051, lines 16-22 (send msg to Call State Control Function for QoS authorization)));

monitoring for a response accepting the session (paragraph 0052 (Policy Control Function has to authorize the requested QoS)) corresponding to the session initiation message forwarded to the session initiation protocol server (paragraph 0051, lines 16-22 (send msg to Call State Control Function for QoS authorization)));

and wherein the enforcing the QoS parameter (paragraph 0052 (mobile terminal generates media binding information after the authorization)) is conditioned on the

response accepting the session initiation message (paragraph 0052 (Policy Control Function authorizes the request QoS)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and display storing the SIP, monitoring the SIP response and enforcing the QoS parameter is conditioned on the response accepting the session initiation message, as taught by Williams, in order to provide a perfect communication path.

Consider **claim 13**, and **as applied to claim 12 above**, Jones et al., as modified by Williams, clearly disclose the network system as described.

However, Jones et al., as modified by Williams, do not specifically disclose:

monitor for a response to the session initiation message forwarded to the session initiation protocol server;

deallocating the wireless bandwidth reserved for the session, if the response rejects the session.

In the same field of endeavor, Williams et al. clearly disclose:

monitor for a response to the session initiation message forwarded to the session initiation protocol server (paragraph 0052 (Policy Control Function has to authorize the requested QoS));

deallocating the wireless bandwidth reserved for the session (paragraph 0049 (MS can reject the profile)), if the response rejects the session (paragraph 0049 (system is overloaded))

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and display monitoring the SIP response and deallocating the wireless bandwidth reserved for the session, if the response rejects the session, as taught by Williams, in order to provide a perfect communication path.

Consider **claim 15**, and **as applied to claim 1 above**, Jones et al., as modified by Williams, clearly disclose the network system as described.

However, Jones et al., as modified by Williams, do not specifically disclose:

the central control element is operative to:

monitor for a response to the session initiation message forwarded to the session initiation protocol server;

transmit, if the response rejects the session corresponding to the session initiation message, control signals to cause the first access element to discard the QoS parameters transmitted by the central control element in response to the session initiation message.

In the same field of endeavor, Williams et al. clearly disclose:

monitor for a response to the session initiation message forwarded to the session initiation protocol server (paragraph 0052 (Policy Control Function has to authorize the requested QoS));

transmit, if the response rejects the session corresponding to the session initiation message (paragraph 0049 (system is overloaded)), control signals to cause

the first access element to discard the QoS parameters transmitted by the central control element in response to the session initiation message (paragraph 0049 (MS can reject the profile)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to show a network system, as taught by Jones, and display monitoring the SIP response and discarding the QoS parameters transmitted by the central control element, as taught by Williams, in order to provide a perfect communication path.

Response to Arguments

Applicant's arguments filed on June 20, 2008, with respect to claims 1 and 12, on page 6 and through page 9 of the remarks have been fully considered. In the present application, Applicants basically argue that Jones et al. do not teach or suggest "processing of session initiation messages for the identification of QoS parameters, and their application at an access element to reserve wireless bandwidth for wireless session corresponding to the session initiation messages".

The Examiner has introduced a new reference which teaches or suggests "processing of session initiation messages for the identification of QoS parameters, and their application at an access element to reserve wireless bandwidth for wireless session corresponding to the session initiation messages". See the above rejections of

claims 1 and 12, for the relevant interpretation and citations found in Williams, disclosing the missing limitations.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Sai-Ming Chan/

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Examiner, Art Unit 2616

September 12, 2008

/Seema S. Rao/

Supervisory Patent Examiner, Art Unit 2616